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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/363,733	07/30/1999	BYOUNG-JO J. KIM		8486

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EXAMINER

SHAH, CHIRAG G

ART UNIT	PAPER NUMBER
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2664

14

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/363,733

Applicant(s)

KIM ET AL.

Examiner

Chirag G Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16, 17, and 24-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16, 17 and 24-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 20-22 rejected under 35 U.S.C. 102(e) as being anticipated by Hensley (U.S. Patent No. 5,898,730).

Referring to claim 20, Hensley teaches of a method for determining signal quality of a communications channel in a communication system. Hensley discloses in figure 1 of a fixed wireless broadband access and a method of integrating fixed wireless broadband access and a wireless local area radio network, comprising the steps of: determining a signal strength (RSSI) and a channel interference (BER) of a first signal channel source derived from the fixed wireless broadband access and broadcast by the wireless area radio network (as disclosed figure 2 and in figure 5, lines 5-65 and in column 7, lines 1-12); identifying a second signal channel source for the at least one broadband radio frequency signal (as disclosed in column 7, lines 1-12, where multiple signal quality determinations is made); determining a signal strength (RSSI) and a channel interference (BER) of the second signal channel source (as further disclosed in column 7, lines 1-12, and in claims 1-10); determining whether the second signal channel source is better than the first signal channel source (as disclosed in claims 1-10 and in figures 3-7, comparing

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signal quality determinations with each other); and effecting crossover if it is determined that the second signal channel is better (figures 1 and 8, selecting signal quality determination indicating lowest signal quality as the signal quality of the communications channel) as claim.

Referring to claim 21, Hensley discloses in column 7, lines 1-36 of the step of interrogating an electronic device to pass information relating to the at least one broadband radio frequency signal (multiple signal quality determinations) as claim.

Referring to claim 22, Hensley discloses in column 3, lines 1-16; column 5 lines 14-36; column 7, lines 57 to column 8, lines 46 and in figure 9 and claims 11-19 and wherein the determination of whether the second signal channel source is better than the first signal channel source is accomplished by a comparison of the signal strength (RSSI) and channel interference (BER) of each of the first and the second signal channel sources as claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16, 17, and 24-38 rejected under 35 U.S.C. 103(a) as being unpatentable over Zendle et al. (U.S. Patent No. 6,628,627) in view of Mahany et al. (U.S. Patent No. 5,949,776).

Referring to claim 24, Zendle et al discloses in figures 2, 4 and 5 and respective portions of the specification of a system comprising: an integrator 420 (computer controlled radio system)

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including a broadband interface unit 505 coupled to a fixed wireless broadband access means (418), for interacting, via a broadband wireless channel (channel 1 or 2 as in figure 2), with a site that is remote (412) from building that houses said fixed wireless broadband access means (414), a local area interface unit (507) for interacting with a wireless local area network (512) within said building, and a modulator/demodulator (modem 506) interposed between said broadband interface unit (505) and said local area interface unit 507 (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for WLAN); and a user device (peripheral devices 434 or 512) adapted to communicate with said site via said local area network. Zendle fails to explicitly disclose that the user device is adapted to communicate with the site via LAN and the integrator, or via other than said local area network. Mahany discloses in claim 1 and abstract and respective portion of the specification of a communications network comprising a first wireless network and a second wireless network independently operable from the first wireless network; an access point device operable on the first wireless network as may be applied to (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for use in WLAN); a first wireless device selectively communicating with the access point device on the first wireless network; a second wireless device operable on the second wireless network to communicate with the first wireless device. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Zendle to incorporate the teachings including a device to communicate with WLAN and a second wireless network independently as taught by Mahany in order to maintain connectivity and functionality to devices on multiple networks which have different operating parameters while reducing delays and expense with respect to bandwidth limitation.

Referring to claims 25-27, 32 and 34, Zendle fails to disclose: the system where a determination is made as to whether said user device ought to be conditioned to communicate over said other than said local area network, or via said local area network and said integrator, based on transmission quality based on signal strength or signal interference level or both at said user device; the system where said user device periodically makes said determination; the system where the user device makes said determination or in response to a signal applied to said user device; the system where the device is conditioned to communicate said is directly via said wireless broadband channel when it is conditioned to communicate over said other than said local area network. Mahany discloses in claim 1 and in the abstract and respective portion of the specification of a communications network comprising a first wireless network and a second wireless network independently operable from the first wireless network; an access point device operable on the first wireless network as may be applied to (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for WLAN); a first wireless device selectively communicating with the access point device on the first wireless network; a second wireless device operable on the second wireless network to communicate with the first wireless device. Furthermore, the first wireless device selectively communicates with the second wireless device on the second wireless network after communication an indication of unavailability on the first wireless network to the access point device (based on no signal strength, the communication takes place with a second network which is the other-than LAN network). Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Zendle to incorporate the teachings including a device to communicate with WLAN and a second wireless network independently as taught by Mahany in order to maintain

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connectivity and functionality to devices on multiple networks which have different operating parameters while reducing delays and expense with respect to bandwidth limitation.

Referring to claim 28-31, 33 and 35, Zendle et al discloses in figures 2, 4 and 5 and respective portions of the specification of a system comprising: an integrator 420 (computer controlled radio system) including a broadband interface unit 505 coupled to a fixed wireless broadband access means (418), for interacting, via a broadband wireless channel (channel 1 or 2 as in figure 2), with a site that is remote (412) from building that houses said fixed wireless broadband access means (414), a local area interface unit (507) for interacting with a wireless local area network (512) within said building, and a modulator/demodulator (modem 506) interposed between said broadband interface unit (505) and said local area interface unit 507 (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for WLAN); and a user device (peripheral devices 434 or 512) adapted to communicate with said site via said local area network. Zendle fails to disclose the system where said user device makes said determination in response to a signal from said integrator; where said device provides to said integrator results of said determination; where said user device provides to said integrator results of said determination in response to an interrogation signal issued by said integrator; where said integrator participates in decision whether said user device communicates to said local area network and said integrator, or via said other than said local area network; the system according to claim 29 where said user device provides to said integrator results of said determination each, time said user device performs said determination; the system according to claim 27 where said user device decides whether said user device communicates to said wireless broadband channel via the integrator. Mahany discloses in claim

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figure 45 and respective portions of the specification, where base station 4517 acts as a direct access point to the backbone LAN 4501. The access point may act as an integrator since the access point device is operable on the first wireless network as in claim 1. Mahany further implies in claims 1 and 9 that interrogation signal is issued by the Access Point to the first wireless device indicating its availability (signal strength). The Access Point (functioning as an integrator) participates in decision; whether the first wireless device should communicate to the LAN and the integrator or via other than LAN based on an indication of its availability. The wireless device provides the integrator results of determination each time based on an active communication connection or disconnection and switching communication to second wireless link as claim. Therefore, it would have been obvious to include the teachings of Mahany's invention into Zendle's invention in order to reduce latency and increase efficiency.

Referring to claim 36, Zendle et al. discloses in figures 2, 4, and 5 and respective portions of the specification of a method of integrating fixed wireless broadband access 418 and a local area radio network 507 (LAN may be wireless since it is disclose in figure 5 and respective portions of the specification of utilizing I/O interface like PCMCIA which are used for WLAN communication), comprising the steps of: receiving a fixed wireless broadband signal from a source outside a building (as illustrated in figure 2 and 5); demodulating a fixed wireless broadband signal, processing the demodulated signal to obtain a user signal, and re-modulating the user signal (as the function of the modem 506); and transmitting the user signal to an electronic device (434 or 512) via a local area network (507) within said building when said electronic device is conditioned to receive signals via said local area network (507). Zendle fails to disclose of refraining from transmitting said user signal to said electronic device when said

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electronic device is conditioned to receive signals via other than said local area network.

Mahany discloses in claim 1 and abstract and respective portion of the specification of a communications network comprising a first wireless network and a second wireless network independently operable from the first wireless network; an access point device operable on the first wireless network as may be applied to (control LAN with the computer interface taking the form of a standard I/O interface like PCMCIA for use in WLAN); a first wireless device selectively communicating with the access point device on the first wireless network; a second wireless device operable on the second wireless network to communicate with the first wireless device. Furthermore, the first wireless device selectively communicates with the second wireless device on the second wireless network after communication an indication of unavailability on the first wireless network to the access point device (based on no signal strength, the communication takes place with a second network which is the other-than LAN network). In other words, when the signal quality is too low, a switch is made to communicate other than LAN and thus implying, the device is refrained from communicating via LAN since the signal indicates unavailability on the first wireless network as claim. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Zendle to incorporate the teachings including a device to communicate with WLAN and a second wireless network independently as taught by Mahany in order to maintain connectivity and functionality to devices on multiple networks which have different operating parameters while reducing delays and expense with respect to bandwidth limitation.

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Referring to claims 37 and 38, Zendle fails to disclose the method further comprising a step of determining whether to condition said electronic device to receive signals via said local area network, or via said other than said local area network; and wherein said electronic device, when conditioned to receive signals via other than said local area network, is conditioned to receive signals from said source directly;. Mahany discloses in claim 1 and in the abstract and respective portion of the specification of a communications network comprising a first wireless network and a second wireless network independently operable from the first wireless network; an access point device operable on the first wireless network as may be applied to; a first wireless device selectively communicating with the access point device on the first wireless network; a second wireless device operable on the second wireless network to communicate with the first wireless device. Furthermore, the first wireless device selectively communicates with the second wireless device on the second wireless network after communication an indication of unavailability on the first wireless network to the access point device (based on no signal strength, the communication takes place with a second network which is the other-than LAN network). Thus, upon receiving an indication of unavailability on the first wireless network, the device is conditioned to receive signal directly from the source of the second wireless network as claim. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Zendle to incorporate the teachings including a device to communicate with WLAN and a second wireless network independently as taught by Mahany in order to maintain connectivity and functionality to devices on multiple networks which have different operating parameters while reducing delays and expense with respect to bandwidth limitation.

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Referring to claim 16 and 17, Zendle et al. discloses in figure 4 the method according to claim 36, wherein the step of receiving is performed on signals received by an antenna, or a satellite dish 418 as claim. Furthermore, Zendle disclose in figure 5 that the method according to claim 36, wherein said local area network is wireless since it is disclose in figure 5 and respective portions of the specification of utilizing I/O interface like PCMCIA which are used for WLAN communication.

Response to Arguments

5. Applicant's arguments with respect to claims 16,17 and 20-38 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 305-9051, (for formal communications; please mark "EXPEDITED
PROCEDURE")

Or:

(703) 305-5403 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal
Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The
examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the
organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is 703-305-3900.

cgs
January 6, 2004


Ash Patel
Primary Examiner